Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A fuel cartridge comprising:

a housing;

a fuel egress port supported by the housing; and

a heat producing element disposed in ~~thermal communication with an interior portion of the housing~~ the fuel egress port.

2. (Withdrawn) The fuel cartridge of claim 1 further comprising:

a surface area enhanced planar vaporization membrane at the heat producing element.

3. (Withdrawn) The fuel cartridge of claim 2 wherein the surface area enhanced planar vaporization membrane is disposed about a substantial portion of the heat producing element.

4. (Withdrawn) The fuel cartridge of claim 2 wherein the surface area enhanced planar vaporization membrane is a composite membrane comprised of multiple layers or folds of polymer membrane to increase vapor permeation surface area.

5. (Withdrawn) The fuel cartridge of claim 2 wherein the surface area enhanced planar vaporization membrane is a membrane arranged as a series of folds.

6. (Withdrawn) The fuel cartridge of claim 2 wherein the surface area enhanced planar vaporization membrane is a polymer membrane provided with macroscopically irregular and/or microscopically roughened membrane surfaces to increase the effective membrane surface area for pre-evaporation.

7. (Withdrawn) The fuel cartridge of claim 2 wherein the heating element is disposed within the housing adjacent the surface area enhanced planar vaporization membrane that spaces a liquid source of hydrogen containing compound or carbonaceous fuel from a vapor phase of the source of hydrogen containing compound or carbonaceous fuel.

8. (Original) The fuel cartridge of claim 1 wherein the cartridge supplies a source of fuel to a direct methanol fuel cell, and the fuel cartridge contains a liquid source of hydrogen containing compound or carbonaceous fuel.

9. (Original) The fuel cartridge of claim 1 wherein the heating element is a wire disposed in thermal communication with the interior of the cartridge.

10. (Original) The fuel cartridge of claim 1 wherein the heating element is a wire disposed in the interior of the cartridge.

11. (Original) The fuel cartridge of claim 1 wherein the heating element in the interior of the cartridge and spaces a vapor portion of the cartridge from a liquid reservoir of the cartridge.

12. (Currently Amended) A fuel cartridge, comprising:

a housing;

a fuel egress port supported by the housing configured to pass fuel in vapor phase;

a bladder for containing a source of fuel;

a heat producing element disposed in the fuel egress port; and

a piston that is urged against the bladder.

Claim 13 is canceled.

14. (Currently Amended) The fuel cartridge of claim ~~11~~ 12 further comprising a spring mechanism disposed to urge the piston against the bladder.

15. (Original) The fuel cartridge of claim 13 further comprising a battery cell disposed to supply power to the heat-producing element.

16. (Original) The fuel cartridge of claim 12 wherein fuel cartridge is a prismatic shaped cartridge.

17. (Original) The fuel cartridge of claim 12 wherein the source of fuel in the bladder is methanol.

18. (Withdrawn) A fuel cartridge, comprising:

a housing ;

a fuel egress port supported by the housing; and

a piston that is urged against the vaporization membrane, with the vaporization membrane providing a chamber in the fuel cartridge in vapor communication with the fuel cell anode.

19. (Withdrawn) The fuel cartridge of claim 18 further comprising a spring mechanism disposed to urge the piston against the membrane.

20. (Withdrawn) A fuel cartridge, comprising:

an inner housing having a opening to allow vapor to escape;

a vaporization membrane;

a piston that is urged against the vaporization membrane, with the vaporization membrane providing a chamber in the inner housing in vapor communication with the opening; and

an outer housing disposed around at least a portion of the inner housing, forming an outer chamber about the inner housing, with the outer chamber being in vapor communication with the chamber in the inner housing.

21. (Withdrawn) The fuel cartridge of claim 20 further comprising a vapor impermeable member disposed to terminate the outer chamber.

22. (Withdrawn) The fuel cartridge of claim 18 further comprising a spring mechanism disposed to urge the vapor impermeable member against a liquid fuel in the inner housing.